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| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION | Application No. | 09/864,093 |
| | Filing Date | 05/21/2001 |
| | First Named Inventor | Clark et al. |
| | Group Art Unit | 2633 2638 |
| | Examiner Name | |
| Sheet 1 of 8 | Attorney Docket No. | 70651 |

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|----------|---|--|----------------------------|-------------------------------------|---|-------|-----------|-------------|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD- YYYY) | CLASS | SUB CLASS | FILING DATE |
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | AA | | 09/823,175 (with Preliminary Amendment filed 7/25/01) | | Willebrand | | | | 03/29/2001 |
| HP | AB | | 09/849,613 | | Willebrand et al. | | | | 05/04/2001 |
| HP | AC | | 09/482,782 | | Willebrand et al. | | | | 01/13/2000 |
| HP | AD | | 6,239,888 | B1 | Willebrand | 05/29/2001 | | | 04/24/1998 |
| HP | AE | | 6,219,363 | B1 | Fix et al. | 04/17/2001 | | | 04/29/1999 |
| HP | AF | | 6,122,084 | | Britz et al. | 09/19/2000 | | | 03/03/1998 |
| MP | AG | | 6,049,593 | | Acampora | 04/11/2000 | | | 12/19/1997 |
| MP | AH | | 6,014,236 | | Flaherty | 01/11/2000 | | | 02/04/1997 |
| HP | AI | | 5,995,253 | | Flaherty | 11/30/1999 | | | 02/04/1997 |
| HP | AJ | | 5,983,068 | | Tomich et al. | 11/9/1999 | | | 02/29/1996 |
| HP | AK | | 5,978,118 | | Flaherty | 11/02/1999 | | | 02/04/1997 |
| HP | AL | | 5,966,229 | | Dodley et al. | 10/12/1999 | | | 06/18/1997 |
| HP | AM | | 5,946,120 | | Chen | 08/31/1999 | | | 05/30/1997 |
| HP | AN | | 5,917,629 | | Hortensius et al. | 06/29/1999 | | | 10/29/1990 |
| HP | AO | | 5,859,725 | | Sugiya et al. | 01/12/1999 | | | 01/12/1999 |
| HP | AP | | 5,844,705 | | Rutledge | 12/01/1998 | | | 02/13/1997 |
| HP | AQ | | 5,838,470 | | Radehaus et al. | 11/17/1998 | | | 06/04/1997 |
| HP | AR | | 5,818,619 | | Medved et al. | 10/06/1998 | | | 06/13/1996 |

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|---|----------------------|----------------------|
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| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|----------|---|------------------------------|----------------------------|-------------------------------------|---|-------|-----------|-------------|
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| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | AS | | 5,786,923 | | Doucet et al. | 07/28/1998 | — | | 03/29/1996 |
| HP | AT | | 5,778,116 | | Tomich | 07/07/1998 | — | | 01/23/1997 |
| HP | AU | | 5,777,768 | | Korevaar | 07/07/1998 | — | | 08/29/1996 |
| HP | AV | | 5,764,677 | | Scheps | 06/09/1998 | — | | 12/14/1995 |
| HP | AW | | 5,748,813 | | Cassidy et al. | 05/05/1998 | — | | 07/28/1993 |
| HP | AX | | 5,661,582 | | Kintis et al. | 08/26/1997 | — | | 10/26/1995 |
| HP | AY | | 5,659,413 | | Carlson | 08/19/1997 | — | | 02/28/1995 |
| HP | AZ | | 5,654,816 | | Fishman | 08/05/1997 | — | | 06/06/1996 |
| HP | BA | | 5,606,444 | | Johnson et al. | 02/25/1997 | — | | 10/20/1994 |
| HP | BB | | 5,596,661 | | Henry et al. | 01/21/1997 | — | | 12/28/1994 |
| HP | BC | | 5,588,015 | | Yang | 12/24/1996 | — | | 08/22/1995 |
| HP | BD | | 5,587,830 | | Chrapplyvy et al. | 12/24/1996 | — | | 05/28/1993 |
| HP | BE | | 5,574,589 | | Feuer et al. | 11/12/1996 | — | | 01/09/1995 |
| HP | BF | | 5,526,161 | | Suzuki et al. | 06/11/1996 | — | | 06/20/1994 |
| HP | BG | | 5,475,520 | | Wissinger | 12/12/1995 | — | | 06/22/1994 |
| HP | BH | | 5,465,170 | | Arimoto | 11/07/1995 | — | | 01/19/1994 |
| HP | BI | | 5,457,562 | | Tremblay | 10/10/1995 | — | | 05/20/1994 |
| HP | BJ | | 5,452,124 | | Baker | 09/19/1995 | — | | 03/04/1994 |
| HP | BK | | 5,448,391 | | Iriyama et al. | 09/05/1995 | — | | 06/29/1993 |
| HP | BL | | 5,443,227 | | Hsu | 08/22/1995 | — | | 10/15/1993 |
| HP | BM | | 5,416,864 | | Cassidy et al. | 05/16/1995 | — | | 11/20/1991 |

| | | |
|---|----------------------|--------------|
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| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|----------|---|------------------------------|----------------------------|-------------------------------------|---|-------|-----------|-------------|
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| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | BN | | 5,416,627 | | Wilmoth | 05/16/1995 | | | 04/24/1992 |
| HP | BO | | 5,410,147 | | Riza et al. | 04/25/1995 | | | 08/20/1992 |
| MP | BP | | 5,400,166 | | Huber | 03/21/1995 | | | 10/20/1992 |
| HP | BQ | | 5,394,489 | | Koch | 02/28/1995 | | | 07/27/1993 |
| HP | BR | | 5,390,040 | | Mayeux | 02/14/1995 | | | 02/04/1994 |
| HP | BS | | 5,384,652 | | Allen et al. | 1/24/1995 | | | 01/06/1993 |
| HP | BT | | 5,371,734 | | Fischer | 12/06/1994 | | | 01/29/1993 |
| MP | BU | | 5,359,446 | | Johnson et al. | 10/25/1994 | | | 09/10/1992 |
| HP | BV | | 5,353,294 | | Shigeno | 10/04/1994 | | | 09/30/1992 |
| MP | BW | | 5,331,449 | | Huber et al. | 07/19/1994 | | | 03/15/1993 |
| HP | BX | | 5,311,535 | | Karpinski | 05/10/1994 | | | 07/28/1992 |
| HP | BY | | 5,301,054 | | Huber et al. | 04/05/1994 | | | 01/14/1993 |
| HP | BZ | | 5,267,010 | | Kremer et al. | 11/30/1993 | | | 05/31/1991 |
| HP | CA | | 5,247,381 | | Olmstead et al. | 09/21/1993 | | | 05/20/1992 |
| HP | CB | | 5,223,781 | | Criswell et al. | 06/29/1993 | | | 03/08/1990 |
| HP | CC | | 5,221,983 | | Wagner | 06/22/1993 | | | 01/19/1989 |
| HP | CD | | 5,218,467 | | Ross et al. | 06/08/1993 | | | 12/28/1990 |
| HP | CE | | 5,218,356 | | Knapp | 06/08/1993 | | | 05/31/1991 |
| HP | CF | | 5,210,631 | | Huber et al. | 05/11/1993 | | | 12/22/1989 |
| HP | CG | | 5,200,631 | | Austin et al. | 04/06/1993 | | | 08/06/1991 |

| | | |
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| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | CH | | 5,185,814 | | Healey | 02/9/1993 | | | 07/13/1990 |
| HP | CI | | 5,185,758 | | Fan et al. | 02/09/1993 | | | 01/07/1992 |
| HP | CJ | | 5,142,400 | | Solinsky | 08/25/1992 | | | 05/28/1991 |
| HP | CK | | 5,083,874 | | Aida et al. | 01/28/1992 | | | 04/10/1990 |
| HP | CL | | 5,068,916 | | Harrison et al. | 11/26/1991 | | | 10/29/1990 |
| HP | CM | | 5,060,303 | | Wilmoth | 10/22/1991 | | | 09/06/1988 |
| HP | CN | | 5,019,768 | | Criswell et al. | 05/28/1991 | | | 02/11/1988 |
| HP | CO | | 5,005,937 | | Aida et al. | 04/09/1991 | | | 04/10/1990 |
| HP | CP | | 4,975,926 | | Knapp | 12/04/1990 | | | 03/30/1989 |
| HP | CQ | | 4,932,775 | | Wissman et al. | 06/12/1990 | | | 11/21/1988 |
| HP | CR | | 4,922,502 | | Unternahrer et al. | 05/01/1990 | | | 06/29/1988 |
| HP | CS | | 4,826,269 | | Streifer et al. | 05/02/1989 | | | 10/16/1987 |
| HP | CT | | 4,823,357 | | Casey | 04/18/1989 | | | 11/10/1986 |
| HP | CU | | 4,794,345 | | Linford et al. | 12/27/1988 | | | 02/26/1986 |
| HP | CV | | 4,773,063 | | Hunsperger et al. | 09/20/1988 | | | 11/13/1984 |
| HP | CW | | 4,761,039 | | Yeh et al. | 08/02/1988 | | | 07/28/1986 |
| HP | CX | | 4,757,268 | | Abrams et al. | 07/12/1988 | | | 05/22/1985 |
| HP | CY | | 4,717,913 | | Elger | 01/05/1988 | | | 08/29/1985 |
| HP | CZ | | 4,689,482 | | Horikawa et al. | 08/25/1987 | | | 06/13/1985 |

| | | |
|---|----------------------|--------------|
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| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|----------|--|---------------------------|----------------------|-------------------------------|---|-------|-----------|-------------|
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| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | DA | | 4,639,586 | | Fender et al. | 01/27/1987 | | | 02/06/1985 |
| HP | DB | | 4,630,254 | | Tseng | 12/16/1986 | | | 10/26/1984 |
| HP | DC | | 4,428,647 | | Sprague et al. | 01/31/1984 | | | 11/04/1982 |
| HP | DD | | 4,060,769 | | Mallozzi et al. | 11/29/1977 | | | 09/20/1974 |
| HP | DE | | 3,967,899 | | O'Meara | 07/06/1976 | | | 12/30/1974 |
| HP | DF | | 3,488,586 | | Watrous et al. | 01/06/1970 | | | 06/02/1965 |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
|--------------------------|----------|--|-------------------------------------|--------------|----------------------|----------------------------------|-------|-----------|-------------|----|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION | |
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | YES | NO |
| HP | DG | | WO | 00/54413 | A2 | 09/14/2000 | | | X | |
| HP | DH | | GB | 2 228 385 | A | 08/22/1990 | | | X | |

| OTHER DOCUMENTS - NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|--|---|
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| HP | DI | | G. NYKOLAK et al.; "A 40 Gb/s DWDM Free Space Optical Transmission Link Over 4.4 km"; <i>Free Space Laser Communication Technologies XII; Proceedings of SPIE</i> ; Vol. 3932, pp. 16-20; (2000). |

| | | |
|--|----------------------|--------------|
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| HP | DI | | P. F. SZAJOWSKI et al.; "Key Elements of High-Speed WDM Terrestrial Free-Space Optical Communications Systems"; <i>Free-Space Laser Communication Technologies XII; Proceedings of SPIE</i> ; Vol. 3932, pp. 2-14; (2000). |
| HP | DK | | R. PAIELLA et al.; "Generation and Detection of High-Speed Pulses of Mid-Infrared Radiation with Intersubband Semiconductor Lasers and Detectors"; <i>IEEE Transactions on Photonics Technology Letters</i> ; Vol. 12, No. 7; pp. 780-782; (July 2000). |
| HP | DL | | F. G. OMENETTO et al.; "Shaping, Propagation and Characterization of Ultrafast Pulses in Optical Fibers"; <i>Applied Physics B, Lasers and Optics</i> ; pp. 1-6; (2000). |
| HP | DM | | G. NYKOLAK et al.; "Update on 4x2.5 Gb/s, 4.4km Free-Space Optical Communications Link: Availability and Scintillation Performance"; <i>Part of the SPIE Conference on Optical Wireless Communications II; SPIE</i> ; Vol. 3850; pp. 11-19 (September 1999). |
| HP | DN | | S. SCHILLER et al.; "Theory of an Optical Parametric Oscillator with Resonant Pump and Signal"; <i>J. Optical Society of America</i> ; Vol. 16, No. 9; pp. 1512-1524; (September 1999). |
| HP | DO | | P. F. SZAJOWSKI et al.; "High Power Optical Amplifiers Enables 1550 nm Terrestrial Free-Space Optical Data-Links Operating @ WDM 2.5 Gb/s Data Rates"; <i>Part of the SPIE Conference on Optical Wireless Communications II; SPIE</i> ; Vol. 3850; pp. 2-10; (September 1999). |
| HP | DP | | Y. YASHKIR et al.; "Passively Q-Switched 1.5- μ m Intracavity Optical Parametric Oscillator"; <i>Applied Optics</i> , Vol. 38, No. 12; pp. 2554-2559; (April 1999). |
| HP | DQ | | GUILFOYLE et al.; "Free-Space Interconnects for High-Performance Optoelectronic Switching"; <i>Computer: IEEE</i> ; pp. 69-75; (February 1998). |
| HP | DR | | KIM et al.; "Scintillation Reduction Using Multiple Transmitters"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2990; pp. 102-113; (1997). |
| HP | DS | | BELMONTE et al.; "Performance of a Multiple-Aperture Optical System"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2699; pp. 316-326; (1996). |
| HP | DT | | K. E. WILSON et al.; "Preliminary Results of the Ground/Orbiter Lasercomm Demonstration Experiment between Table Mountain and the ETS-VI Satellite"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2699; pp. 121-132 (1996). |

| | | |
|--|----------------------|--------------|
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| OTHER DOCUMENTS - NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|--|---|
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| HP | DU | | A. LOURI et al.; "Feasibility Study for a Scalable Optical Interconnection Network for Massively Parallel Processing Systems"; <i>Applied Optics</i> , Vol. 35, No. 8; pp. 1296-1308 (March 10, 1996). |
| HP | DV | | J. SCHUSTER et al.; "Optomechanical Design of STRV-2 Lasercom Transceiver Using Novel Azimuth/Slant Gimbal"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2699; pp. 227-239 (January 30-31, 1996). |
| HP | DW | | E. KOREVAAR et al.; "Design of Satellite Terminal for BMDO Lasercom Technology Demonstration"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2381; pp. 60-71 (February 7-8, 1995). |
| HP | DX | | KUDIELKA et al.; "Experimental Verification of an Adaptive Optical Multi-Aperture Receive Antenna for Laser Space Communications"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2123; pp. 478-483 (1994). |
| HP | DY | | E. KOREVAAR et al.; "Status of BMDO/IST Lasercom Advanced Technology Demonstration"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 2123; pp. 96-107 (1994). |
| HP | DZ | | A. S. ACAMPORA; "The Scalable Lightwave Network"; <i>IEEE Communications Magazine</i> ; pp. 36-42 (December 1994). |
| HP | EA | | C. BRACKETT et al.; "A Scalable Multiwavelength Multihop Optical Network: A Proposal for Research on All-Optical Networks"; <i>Journal of Lightwave Technology</i> , Vol. 11, No. 5/6; pp. 736-753, (May/June 1993). |
| HP | EB | | E. KOREVAAR et al.; "Status of SDIO/IS&T Lasercom Testbed Program"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 1866; pp. 116-127 (January 20-21, 1993). |
| HP | EC | | J. H. CHURNSIDE; "Aperture Averaging of Optical Scintillations in the Turbulent Atmosphere"; <i>Applied Optics</i> , Vol. 30, No. 15; pp. 1982-1994 (May 20, 1991). |
| HP | ED | | W. M. BRUNO et al.; "Diode Laser Spatial Diversity Transmitter"; <i>Society of Photo-Optical Instrumentation Engineers</i> , Vol. 1044; pp. 187-194 (1989). |
| HP | EE | | A. S. ACAMPORA; "A Multichannel Multihop Local Lightwave Network"; <i>GLOBECOM '87; IEEE</i> ; pp. 1459-1467, (1987). |
| HP | EF | | D. L. FRIED; "Aperture Averaging of Scintillation"; <i>Journal of the Optical Society of America</i> , Vol. 57, No. 2; pp. 169-175 (February 1967). |

| | | |
|---|-----------------------------|----------------------|
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| Examiner Signature | <i>Hardyhan</i> | Date Considered | <i>09/01/05</i> |
| <small>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.</small> | | | |

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| HP | AA | x | 4330870 | | Arends | 05-18-1982 | — | — | |
| HP | AB | x | 4807222 | | Amitay | 02-21-1989 | — | — | |
| HP | AC | x | 4904993 | | Sato | 02-27-1990 | — | — | |
| HP | AD | x | 4916460 | | Powell | 04-10-1990 | — | — | |
| HP | AE | x | 5034997 | | Iwasaki | 07-23-1991 | — | — | |
| HP | AF | x | 5227906 | | Tokumitsu | 07-13-1993 | — | — | |
| HP | AG | x | 5280184 | | Jokerst, et al. | 01-18-1994 | — | — | |
| HP | AH | x | 5321718 | | Waarts, et al. | 06-14-1994 | — | — | |
| HP | AI | x | 5329576 | | Handforth | 07-12-1994 | — | — | |
| HP | AJ | x | 5416861 | | Koh, et al. | 05-16-1995 | — | — | |
| HP | AK | x | 5548772 | | Lin, et al. | 08-20-1996 | — | — | |
| HP | AL | x | 5585953 | | Zavrel | 12-17-1996 | — | — | |
| HP | AM | x | 5710652 | | Bloom et al. | 10-20-1998 | — | — | |
| HP | AN | x | 5786923 | | Doucet et al. | 07-28-1998 | — | — | |
| HP | AO | x | 5790286 | | Bac | 08-04-1998 | — | — | |
| HP | AP | x | 5818984 | | Ahmad, et al. | 10-06-1998 | — | — | |
| HP | AQ | x | 5883730 | | Coult, et al. | 03-16-1999 | — | — | |
| HP | AR | x | 5936578 | | Driessen et al. | 08-10-1999 | — | — | |
| HP | AS | x | 5949564 | | Wake | 09-07-1999 | — | — | |
| HP | AT | x | 6016212 | | Durant et al. | 01-18-2000 | — | — | |
| HP | AU | x | 6043918 | | Bozzay et al. | 03-28-2000 | — | — | |

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|-----------------------|----------|---|---------------------------|----------------------|-------------------------------|--|-------|-----------|--------------------------|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(a)(2)(ii) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | FILING DATE (MM-DD-YYYY) |
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | AV | x | 6104513 | | Bloom | 08-15-2000 | — | | |
| HP | AW | x | 6115157 | | Barnard, et al. | 09-05-2000 | — | | |
| HP | AX | x | 6141128 | | Korevaar, et al. | 10-31-2000 | — | | |
| HP | AY | x | 6268944 | | Szapiel | 07-31-2001 | — | | |
| HP | AZ | x | 6272271 | | Wojnarowski, et al. | 08-07-2001 | — | | |
| HP | BA | x | 6285481 | | Palmer | 09-04-2001 | — | | |
| HP | BB | x | 6288813 | | Kirkpatrick, et al. | 09-11-2001 | — | | |
| HP | BC | x | 6301037 | | Fischer, et al. | 10-09-2001 | — | | |
| HP | BD | x | 6323980 | | Bloom | 11-27-2001 | — | | |
| HP | BE | x | 6348986 | | Doucet, et al. | 02-19-2002 | — | | |
| HP | BF | x | 6381055 | | Javitt, et al. | 04-30-2002 | — | | |
| HP | BG | x | 6398425 | | Williams, et al. | 06-04-2002 | — | | |
| HP | BH | x | 6411414 | | Abate, et al. | 06-25-2002 | — | | |
| HP | BI | x | 6452700 | | Mays, Jr. | 09-17-2002 | — | | |
| HP | BJ | x | 6462847 | | Willebrand | 10-08-2002 | — | | |
| HP | BK | x | 6493121 | | Althaus | 12-10-2002 | — | | |
| HP | BL | x | 6509992 | | Goodwill | 01-21-2003 | — | | |
| HP | BM | x | 6583904 | | Mahlab, et al. | 06-24-2003 | — | | |
| HP | BN | x | RE35736 | | Powell | 02-24-1998 | — | | |
| HP | BO | x | 2002/0005972 | | Bloom, et al. | 01-17-2002 | — | | |

| | | |
|--|----------------------|--------------------------------|
| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION | Application No. | 09/864,093 |
| | Filing Date | May 21, 2001 |
| | First Named Inventor | Clark |
| | Group Art Unit | 2633 2638 |
| | Examiner Name | Hanh Phan |
| Sheet 3 of 6 | | Attorney Docket No. 70651/7293 |

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|----------|---|---------------------------|----------------------|-------------------------------|--|-------|-----------|--------------------------|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(a)(2)(ii) | U.S. PATENT DOCUMENT | | NAME OF INVENTOR OR APPLICANT | DATE OF ISSUANCE OR PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | FILING DATE (MM-DD-YYYY) |
| | | | PATENT, PUB., OR APP. NO. | KIND CODE (if known) | | | | | |
| HP | BP | x | 2002/0012139 | | Willebrand, et al. | 01-31-2002 | 1 | | |
| HP | BQ | x | 2002/0051269 | | Margalit et al. | 05-02-2002 | 1 | | |
| HP | BR | x | 2002/0054411 | | Heminger et al. | 05-09-2002 | 1 | | |
| HP | BS | x | 2002/0054413 | | Shivnan, Aine | 05-09-2002 | 1 | | |
| HP | BT | x | 2002/0122230 | | Izadpanah, Hossein; et al. | 09-05-2002 | 1 | | |
| HP | BU | x | 2002/0122232 | | Doucet, et al. | 09-05-2002 | 1 | | |
| HP | BV | x | 2002/0141020 | | Doucet, et al. | 10-03-2002 | 1 | | |
| HP | BW | x | 2002/0149811 | | Willebrand | 05-03-2005 | 1 | | |
| HP | BX | x | 2002/0167697 | | Willebrand, Heinz | 11-14-2002 | 1 | | |
| HP | BY | x | 2002/0171896 | | Clark, Gerald R.; et al. | 11-21-2002 | 1 | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
|--------------------------|----------|--|-------------------------------------|--------------|----------------------|----------------------------------|-------|-----------|-------------|----|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION | |
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | YES | NO |
| HP | BZ | | DE | 4433896 | C | 09/11/1995 | 1 | | X | |
| MP | CA | | EP | 0 378 148 | B1 | 04/10/1996 | 1 | | X | |
| MP | CB | | EP | 0 513 993 | A2 | 11/19/1992 | 1 | | X | |
| MP | CC | | WO | 00/08783 | | 02/17/2000 | 1 | | X | |

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|--|----------------------|--------------------------------|
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| Sheet 4 of 6 | | Attorney Docket No. 70651/7293 |

| FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
|--------------------------|----------|--|-------------------------------------|--------------|----------------------|----------------------------------|-------|-----------|-------------|----|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | FOREIGN PATENT DOCUMENT | | | DATE OF PUBLICATION (MM-DD-YYYY) | CLASS | SUB CLASS | TRANSLATION | |
| | | | COUNTRY OR OFFICE (two-letter code) | DOCUMENT NO. | KIND CODE (if known) | | | | YES | NO |
| HP | CD | | WO | 01/52450 | A2 | 07/19/2001 | 1 | | X | |
| HP | CE | | GB | 2 221 810 | A | 02/14/1990 | 1 | | X | |
| HP | CF | | GB | 2 257 321 | A | 01/06/1993 | 1 | | X | |
| HP | CG | | WO | 98/32250 | | 07/23/1998 | 1 | | X | |
| HP | CH | | JP | S63-215125 | | 07/07/1988 | 1 | | X | |

| OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS | | | |
|--|----------|--|---|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| HP | CI | | A. Belmonte et al.; "Performance of a Multiple-Aperture Optical System"; Society of Photo-Optical Instrumentation Engineers, vol. 2699; 1996; pp. 316-326. |
| HP | CJ | | C. M. Stickley et al.; Demonstration of an Adaptive, Coherent-Combining Laser Radar Receiver; 18.sup.th International Laser Radar Conference; 1996; pp. 247-250. |
| HP | CK | | Graves, J. et al.; "Advancing Free-Space Optical Communications With Adaptive Optics"; Lightwave; Sep. 2002; pp. 105, 106 and 113. |
| HP | CL | | Hungarian Patent Office, Search Report for Hungarian National Phase of PCT/US00/35198, which claims priority to U.S. App. 09/482,782; dated Jan. 15, 2003; pp. 1-3. |
| HP | CM | | I. I. Kim et al.; Scintillation Reduction Using Multiple Transmitters; Society of Photo-Optical Instrumentation Engineers, vol. 2990; 1997; pp. 102-113. |
| HP | CN | | J. Shamir et al.; "Diversity Methods for Fading Control"; Applied Optics; vol. 27, No. 8; Apr. 15, 1988; pp. 1389-1391. |
| HP | CO | | K. H. Kudielka et al.; "Experimental Verification of an Adaptive Optical Multi-Aperature Receive Antenna for Laser Space Communications"; Society of Photo-Optical Instrumentation Engineers, vol. 2123; 1994; pp. 478-486. |
| HP | CP | | K. Kimura et al.; "Global Satellite Communication Network using Double-Layered Inclined Orbit Constellation with Optical Inter-Satellite Links"; ATR Optical and Radio Communications Research Laboratories, Kyoto, Japan; SPIE; vol. 2699; 1996; pp. 12-23. |

| | | |
|--|----------------------|----------------------|
| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION | Application No. | 09/864,093 |
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| Sheet 5 of 6 | Attorney Docket No. | 70651/7293 |

| OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS | | | |
|--|----------|--|---|
| EXAMINER INITIALS* | CITE NO. | COPY NOT ENCLOSED PER 37 CFR § 1.98(d) | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| HP | CQ | | K. Kimura et al.; "Satellite Constellation of Low Earth Orbit (LEO) Satellite Global Communication Network using Optical Inter-Satellite Links"; ATR Optical and Radio Communications Research Laboratories, Kyoto, Japan; SPIE; vol. 2381; 1995; pp. 48-59. |
| HP | CR | | Korevaar, et al., Status of BMDO-IST Lasercom Advanced Technology Demonstration, SPIE-The International Society for Optical Engineering, pgs. 96-107, vol. 2123, Society of Photo-Optical Instrumentation Engineers, Washington, USA. |
| HP | CS | | Korevaar, et al., Status of SDIO/IS&T Lasercom Testbed Program, SPIE-The International Society for Optical Engineering, Jan. 20-21, 1993, pgs. 116-127, vol. 1866, Society of Photo-Optical Instrumentation Engineers, Washington, USA. |
| HP | CT | | KUBE; "Renaissance Eines Alten Konzepts"; Nachrichten Elektronik und Telematik; Vol. 49; No. 5; May 1995; pp. 15, 16 and 18. (English translation provided.) |
| HP | CU | | Lightpointe Communications, Inc.; "Complex Networking Connectivity Example: Allianz Insurance."; p. 1; (1995). |
| HP | CV | | NASA Jet Propulsion Laboratory; "Multiple-Beam Transmission for Optical Communication"; http://www.nasatech.com/Briefs/Nov98/NPO20384.html ; Oct. 26, 2001; pp.1-2. |
| HP | CW | | "OPTICAL LINKS: Network Connection Directly Through the Atmosphere"; Communication by Light (CBL); Mar. 1995; 8 pages. |
| HP | CX | | PCT International Search Authority; "Notification of Transmittal of the International Search Report"; "PCT International Search Report" for International Application No. PCT/US02/10075 which claims priority to U.S. Application No. 09/835,866; mailed Jul. 30, 2002; (4 pages). |
| HP | CY | | PCT International Search Authority; "Notification of Transmittal of the International Search Report"; "PCT International Search Report" for International Application No. PCT/US00/35198 which corresponds to U.S. Application No. 09/482,782; mailed Feb. 6, 2002; (7 pages). |
| HP | CZ | | PCT International Preliminary Examining Authority; "Notification of Transmittal of the International Preliminary Examination Report"; "PCT International Preliminary Examination Report" for International Application No. PCT/US00/35198 which corresponds to U.S. Application No. 09/482/782; mailed Apr. 29, 2002; (13 pages). |
| HP | DA | | PCT International Search Authority; "Notification of Transmittal of the International Search Report" and "International Search Report" for International Application No. PCT/US01/14547 which corresponds to U.S. Appl. No. 09/849,613; mailed Apr. 3, 2003; (7 pages). |
| HP | DB | | PCT International Preliminary Examining Authority; "Notification of Transmittal of the International Preliminary Examination Report"; "PCT International Preliminary Examination Report" for International Application No. PCT/US01/14547 which corresponds to U.S. Appl. No. 09/849,613; mailed Dec. 5, 2003; (6 pages). |

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|--|----------------------|----------------------|
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| OTHER DOCUMENTS – NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|--|--|
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| HP | DC | | PCT International Bureau; "PCT International Search Report" for International Application No. PCT/US02/13473 which corresponds to U.S. Application No. 09/834,093; mailed Jul. 10, 2002; (1 page). |
| HP | DD | | P.S. Guilfoyle et al.; "Free-Space Interconnects for High-Performance Optoelectronic Switching"; Computer; IEEE; Feb. 1998; pp. 66-75. |
| HP | DE | | Schuster, et al., Optomechanical Design of STRV-2 Lasercom Transceiver Using Novel Azimuth/slant gimbal, SPIE--the International Society for Optical Engineering, Jan. 30-31, 1996, pp. 227-239, vol. 2699, Society of Photo-Optical Instrumentation Engineers, Washington, USA. |
| HP | DF | | S. Hollung et al.; A Bi-Directional Quasi-Optical Lens Amplifier; IEEE Transactions on Microwave Theory and Techniques; vol. 45, No. 12; Dec. 1997; pp. 2352-2357. |
| HP | DG | | Teleconnect GmbH; "Installation Mittweida 1993" (digitized photograph copies); 1993; pp. 1-2. |
| HP | DH | | Teleconnect GmbH; "Optische Freiraum-Übertragungssysteme"; Teleconnect Verbindungen in die Zukunft; Produktinformation; Apr. 1995; pp. 1-16. (English translation provided.). |
| HP | DI | | TURINSKY; "Kabellose Übertragung von Digital-Audio- und Videosignalen"; Praxis; RFE; March 1994; pp. 33-34. (English translation provided.) |
| HP | DJ | | Wilson, et al., Preliminary Results of the Ground/Orbiter Lasercomm Demonstration Experiment Between Table Mountain and the ETS-VI Satellite, SPIE--the International Society for Optical Engineering, Jan. 30-31, 1996, pgs. 121-132, vol. 2699, Society of Photo-Optical Instrumentation Engineers, Washington, USA. |

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| Examiner Signature | <i>Hanh Phan</i> | Date Considered | 09/01/05 |
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